

Appl. No. 10/611,616
Response Dated October 17, 2005
Reply to Office Action of June 16, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method to manage a buffer, comprising:
storing audio information in a circular buffer;
scheduling access to said audio information by a plurality of components;
determining a frame boundary for said stored audio information; and
accessing said stored audio information by said components in accordance with said schedule and said frame boundary.
2. (Original) The method of claim 1, wherein said storing comprises:
receiving audio information;
identifying a buffer location to store said audio information; and
storing said audio information in said buffer location.
3. (Currently Amended) The method of claim 2, wherein said storing further comprises:
determining whether said buffer location comprises a said frame boundary; and
sending a first signal with said frame boundary in accordance with said determination.

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4. (Original) The method of claim 3, wherein said scheduling comprises:
receiving said first signal;
selecting some components to access said buffer using said frame boundary; and
sending a second signal to said selected components to access said buffer.
5. (Original) The method of claim 4, wherein said accessing comprises:
receiving said second signal;
retrieving an index to indicate a first buffer location;
reading a frame of audio information from said buffer using said index;
processing said audio information;
writing said processed audio information to said buffer; and
updating said index to a second buffer location.
6. (Currently Amended) An apparatus to perform media processing, comprising:
a circular buffer;
an audio data module connected to said circular buffer;
a plurality of components connected to said circular buffer; and
a scheduling module connected to said audio ~~data input~~ module and said
components, said scheduling module to schedule access to audio information stored by
said circular buffer for said plurality of components, said audio data module to determine
a frame boundary for said stored audio information, and said components to access said
stored audio information in accordance with said schedule and said frame boundary.

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7. (Original) The apparatus of claim 6, wherein said plurality of components comprises at least two components of a list of components comprising a preprocessing module, an echo canceller, a signal detector and generator, an automatic gain controller, and a voice encoder.

8. (Original) The apparatus of claim 6, wherein said plurality of components comprises at least two components of a list of components comprising a data modem, a signal detector and generator, automatic volume control and voice decoder.

9. (Original) The apparatus of claim 6, wherein said audio data module stores audio information in said circular buffer by receiving audio information, identifying a buffer location to store said audio information, and storing said audio information in said buffer location.

10. (Currently Amended) The apparatus of claim 9, wherein said audio data module determines whether said buffer location comprises a said frame boundary, and sends a first signal with said frame boundary if said buffer location is a frame boundary.

11. (Original) The apparatus of claim 10, wherein said scheduling module schedules access to said audio information by said components by receiving said first signal, selecting some components to access said buffer using said frame boundary, and sending a second signal to said selected components to access said buffer.

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12. (Original) The apparatus of claim 11, wherein each component accesses said stored audio information by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of audio information from said buffer using said index, processing said audio information, writing said processed audio information to said buffer, and updating said index to a second buffer location.

13. (Currently Amended) An article comprising:
a storage medium;
said storage medium including stored instructions that, when executed by a processor, result in storing audio information in a circular buffer; scheduling access to said audio information by a plurality of components, determining a frame boundary for said stored audio information, and accessing said stored audio information by said components in accordance with said schedule and said frame boundary.

14. (Original) The article of claim 13, wherein the stored instructions, when executed by a processor, further result in said storing by receiving audio information, identifying a buffer location to store said audio information, and storing said audio information in said buffer location.

15. (Currently Amended) The article of claim 14, wherein the stored instructions, when executed by a processor, further result in said storing by determining whether said buffer location comprises a said frame boundary, and sending a first signal with said frame boundary in accordance with said determination.

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16. (Original) The article of claim 15, wherein the stored instructions, when executed by a processor, further result in said scheduling by receiving said first signal, selecting some components to access said buffer using said frame boundary, and sending a second signal to said selected components to access said buffer.

17. (Original) The article of claim 16, wherein the stored instructions, when executed by a processor, further result in said accessing by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of audio information from said buffer using said index, processing said audio information, writing said processed audio information to said buffer, and updating said index to a second buffer location.

18. (Currently Amended) A system to process audio information, comprising:
a media gateway;
a media gateway controller; and
a media processing device connected to said media gateway and said media gateway controller, said media processing device comprising:

a circular buffer;
an audio data module connected to said circular buffer;
a plurality of components connected to said circular buffer; and
a scheduling module connected to said audio data module and said
components, said scheduling module to schedule access to audio information
stored by said circular buffer for said plurality of components, said audio data

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module to determine a frame boundary for said stored audio information, and said components to access said stored audio information in accordance with said schedule and said frame boundary.

19. (Canceled).

20. (Currently Amended) The system of claim 18-19, wherein said audio data module stores audio information in said circular buffer by receiving audio information, identifying a buffer location to store said audio information, and storing said audio information in said buffer location.

21. (Currently Amended) The system of claim 20, wherein said audio data module determines whether said buffer location comprises a said frame boundary, and sends a first signal with said frame boundary if said buffer location is a frame boundary.

22. (Original) The system of claim 21, wherein said scheduling module schedules access to said audio information by said components by receiving said first signal, selecting some components to access said buffer using said frame boundary, and sending a second signal to said selected components to access said buffer.

23. (Original) The system of claim 22, wherein each component accesses said stored audio information by receiving said second signal, retrieving an index to indicate a first buffer location, reading a frame of audio information from said buffer using said index,

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processing said audio information, writing said processed audio information to said
buffer, and updating said index to a second buffer location.